INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Form PTO-1449 (Modified)

of

1

COLETE IF KNOWN						
Application Number	09/978,134					
Confirmation Number	4196	_				
Filing Date	10/15/2001					
First Named Inventor	Bradford Evan Gliner					
Group Art Unit	3762					
Examiner Name	Roderick D. Bradford	-				
Attorney Docket No.	33734-8021US					

					U.S	S. PATENT DOCUMENTS	3	•	
Examiner Initials*				Name of Patentee or Inventor of Cited Document	Date of Publication or Filing Date of Cited Document	Pages, Columns, Lines Where Relevant Passages Relevant Figures Appea			
R.B.		5,93	88,688		Scl	hiff	08/17/99		
								RECEIV	E[
								TECHNOLOGY CENTER	R370
					FORE	IGN PATENT DOCUMEN	ITS		
Examiner Initials*	Cite No.	I .		or Application Kind C	Code Name of Patentee or Applicant		Date of Publication or Filing Date	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	Т
·									
Examiner Initials* OTHER PRIOR ART-NON PATENT LITERATURE DOCUMENTS Include name of the author (in CAPITAL LETTERS), title of the article (when appropriat (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume issue nur and/or country where published.						e article (when appropriate) page(s), volume issue num), title of the item ber(s), publisher, city	Т	

EXAMINER		DATE CONSIDERED					
	Mon	6/15/04					
*EXAMINER:	Initial if reference considered, whether or not criteria is in confor	mance with MPEP 609. Draw line through citation if not in conformance and not					
	considered. Include copy of this form with next communication to application(s).						

Approved for use through 10/31/99. OMB 0651-0031 Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

•		<u> </u>	COMPLETE IF KNOWN		
Substitute to form 1449A/PTO			Application Number	09/978,134	
FINEORMATION	DISCLOSUR	RE	Confirmation Number	4196	
STATEMENT B	Y APPLICAN	IT	Filing Date	10/15/01	
MAR 2 2 2002 (use as many she	ets as necessary)		First Named Inventor	Bradford Evan Gliner	
MAR	•		Group Art Unit	3762	
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			Examiner Name	Unknown	
1	of	6	Attorney Docket No.	337348021US	

			U.S. PATENT DOCUMEN	NTS		
•EXAMINER INITIALS	Cite No.	U.S. Patent Document NUMBER Kind Code (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	
RO_	AA	5,713,922	King	02/03/98		
ĺ	AB	5,215,086	Terry, Jr. et al.	06/01/93		
	AC	5,716,377	Rise et al.	02/10/98		
	AD	5,975,085	Rise	11/02/99		
	AE	6,066,163	John	05/23/00		
	AF	3,650,276	Burghele et al	03/21/72		
	AG	4,140,133	Kastrubin et al.	02/20/79		
	ΑН	4,542,752	DeHaan et al.	09/24/85		
	ΑI	4,607,639	Tanagho et al.	08/26/86		
	AJ	4,646,744	Capel	03/03/87		
	AK	4,844,075	Liss et al.	07/04/89		
	AL	4,865,048	Eckerson	09/12/89		
	AM	5,002,053	Garcia-Rill et al.	03/26/91		
	AN 5,031,618		Mullett	07/16/91		
į	AO	5,092,835	Schurig et al.	03/03/92		
	AP	5,143,089	Alt	09/01/92		
	AQ 5,169,384		Bosniak et al.	12/08/92		
	AR	5,304,206	Baker, Jr. et al.	04/19/84		
	AS	5,358,513	Powell, III et al.	10/25/94		
	AT	5,370,672	Fowler et al.	12/06/94		
	AU	5,417,719	Hull et al.	05/23/95		
	AV	5,537,512	Hsia et al.	07/16/96	Tig	
	AW	5,540,736	Haimovish et al.	07/30/96	200 A	
	AX	5,411,540	Edell et al.	05/02/95	WAR E	
	AY	5,549,655	Erickson	08/27/96	2 20	
	AZ	5,885,976	Sandyk	03/23/99	2 7 2002 (CENTER 113700	
	BA	5,886,769	Zolten	03/23/99	700	
	ВВ	5,904,916	Hirsch	05/18/99	8	
	ВС	5,938,688	Schiff	08/17/99		



Substitute for form 1449A/PTO

PENEORMATION DISCLOSURE

und 2 2 2000 (use as many sheets as necessary)

Tutter and 1160	EMERIC CHICE: C.S. DELTECTION OF COMMERCE					
COMPLETE IF KNOWN						
Application Number	09/978,134					
Confirmation Number	4196					
Filing Date	10/15/01					
First Named Inventor	Bradford Evan Gliner					
Group Art Unit	3762					
Examiner Name	Unknown					

Co beet	- NE	2	O	F	6	Attorney Docket	No.	337348021US
	BD	5,591,216			man et al.	amain, Docket	01/07/9	
<u>Q</u> .Q.	BE	5,593,432			her et al.		01/14/9	
_	BF	5,628,317			baum et al.		05/13/9	
	BG	5,683,422		Rise	badin et al.		11/04/9	
	ВН	5,702,429		King	· <u></u>		12/30/9	
	BI	5,711,316	\dashv		ry et al.		01/27/9	
	BJ	5,713,923		Ward			02/03/9	
	BK	5,735,814	-		ry et al.		04/07/9	
	BL	5,752,979		Benab			05/19/9	
	ВМ	5,782,798		Rise			07/21/9	
	BN	5,792,186	- 	Rise			08/11/9	
	ВО	5,797,970		Pouvre	2011		08/25/9	
	BP	5,814,014			ry et al.		09/29/9	
	BQ	5,814,092		King			09/29/9	
	BR	5,824,021		Rise			10/20/9	
	BS	5,832,932			ту et al.		11/10/9	
	BT	5,833,709		Rise e	<u> </u>	· · · · · · · · · · · · · · · · · · ·	11/10/9	
	BU	5,843,148			rs et al.		12/01/9	
	BV	5,843,150			sen et al.		12/01/9	
	BW	5,893,883			rson et al.		04/13/9	
	BX	5,913,882	_	King			06/22/9	
	BY	5,925,070		King			07/20/9	
	BZ	5,941,906		<u> </u>	ras, St. et al.		08/24/9	
	CA	5,964,794		Bolz e			10/12/9	
	СВ	5,978,702	+	Ward			11/02/9	
	СС	6,011,996	+		et al. n et al.		01/04/0	
	CD	6,018,682		Rise			01/04/0	
	CE	6,021,352			opherson et al.		02/01/0	N
	CF	6,026,326		Bardy			02/01/0	
- 	CG	6,042,579	-	· · · · · ·	ту et al.		03/28/0	
$ \psi$	CI		-	 			<u> </u>	
		6,057,847		Sever,	Jf.		05/02/0	JU

COMPLETE IF KNOWN 09/978,134 Substitute for form 1449A/PTO **Application Number** INFORMATION DISCLOSURE 4196 Confirmation Number 10/15/01 TATEMENT BY APPLICANT Filing Date Ase as many sheets as necessary) **Bradford Evan Gliner** First Named Inventor 3762 Group Art Unit Unknown Examiner Name She 6 3 of Attorney Docket No. 337348021US 05/02/00 6,058,331 King CK 6,055,456 Gerber 04/25/00 CL 6,060,048 Cherksey 05/09/00 CM 6,104,956 Naritoku et al. 08/15/00 CN 6,104,960 Duysens et al. 08/15/00 co 6,122,548 Starkebaum et al. 09/19/00 CP 6,126,657 Edwards et al. 10/03/00 CQ 6,128,537 Rise 10/03/00 CR 6,152,143 **Edwards** 11/28/00 CS 6,161,044 Silverstone 12/12/00 CT 09/802,808 Firlik 03/08/01 CU Sheffield 60/325,872 09/28/01 CV 60/325,978 Gliner 09/28/01 CW 10/072,700 **Firlik** 02/07/02 - 11 FOREIGN PATENT DOCUMENTS Pages, Columns, Lines, Where *EXAMINER Date of Publication of Foreign Patent Document Name of Patentee or Applicant Cite T Relevant Passages or Relevant Kind Code INITIALS No. of Cited Document Cited Document Figures Appear Office Number (if known) CX **PCT** WO 98/06342 Neotonus, Inc. 02/19/98 OTHER PRIOR ART-NON PATENT LITERATURE DOCUMENTS *EXAMINER Cite Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, T No. INITIALS journal, serial, symposium, catalog, etc.), date, page(s), volume0issue number(s), publisher, city and/or country where published. SIEBNER et al., "Lasting cortical activation after repetitive TMS of the motor cortex," NEUROLOGY 54, pp. 956-963 (February 2000) R -D. CY ZIEMANN et al., "Modulation of Plasticity in Human Motor Cortex after Forearm Ischemic Nerve Block," The Journal of Neuroscience, Vol. 18, No. 3, pp. 1115-1123 (February 1998) R.B.

Substitute for form 1449A/PTO PENFORMATION DISCLOSURE STATEMENT BY APPLICANT Solution Number 4196 Filing Date 10/15/01 First Named Inventor Bradford Evan Gliner Group Art Unit 3762 Examiner Name Unknown Sheet 4 of 6 Attorney Docket No. 337348021US OLIVERI et al., "Paired transcranial magnetic stimulation protocols reveal a pattern of inhibition facilitation in the human parietal cortex," The Journal of Physiology, 529.2, pp. 461-468 (2000)	and
Filing Date 10/15/01 First Named Inventor Bradford Evan Gliner Group Art Unit 3762 Examiner Name Unknown OLIVERI et al., "Paired transcranial magnetic stimulation protocols reveal a pattern of inhibition facilitation in the human parietal cortex." The Journal of Physiology, 529 2, pp. 461-468 (2000)	and
First Named Inventor Bradford Evan Gliner Group Art Unit 3762 Examiner Name Unknown Sheet 4 of 6 Attorney Docket No. 337348021US OLIVERI et al., "Paired transcranial magnetic stimulation protocols reveal a pattern of inhibition facilitation in the human parietal cortex." The Journal of Physiology, 529 2, pp. 461-468 (2000)	and
First Named Inventor Bradford Evan Gliner Group Art Unit 3762 Examiner Name Unknown Sheet 4 of 6 Attorney Docket No. 337348021US OLIVERI et al., "Paired transcranial magnetic stimulation protocols reveal a pattern of inhibition facilitation in the human parietal cortex." The Journal of Physiology, 529 2, pp. 461-468 (2000)	and
Sheet 4 of 6 Attorney Docket No. 337348021US OLIVERI et al., "Paired transcranial magnetic stimulation protocols reveal a pattern of inhibition facilitation in the human parietal cortex." The Journal of Physiology, 529 2, pp. 461-468 (2000)	and
Sheet 4 of 6 Attorney Docket No. 337348021US OLIVERI et al., "Paired transcranial magnetic stimulation protocols reveal a pattern of inhibition facilitation in the human parietal cortex." The Journal of Physiology, 529 2, pp. 461-468 (2000)	and
Sheet 4 of 6 Attorney Docket No. 337348021US OLIVERI et al., "Paired transcranial magnetic stimulation protocols reveal a pattern of inhibition facilitation in the human parietal cortex." The Journal of Physiology, 529 2, pp. 461-468 (2000)	and
OLIVERI et al., "Paired transcranial magnetic stimulation protocols reveal a pattern of inhibition facilitation in the human parietal cortex." The Journal of Physiology, 529 2, pp. 461-468 (2000)	and
facilitation in the human parietal cortex." The Journal of Physiology, 529.2, pp. 461-468 (2000)	and
CLASSEN, et al., "Rapid Plasticity of Human Cortical Movement Representation Induced by Practice," Journal of Neurophysiology, Vol. 79, No. 2, pp. 1117-1123 (February 1998)	
LEVY et al., "Functional MRI Evidence of Cortical Reorganization in Upper-Limb Stroke Hemip Treated with Constraint-Induced Movement Therapy," American Journal of Physical Medicine Rehabilitation, Vol. 80, No. 1, pp. 4-7 (2001)	e & _/
GORDON et al., "Parameters for direct cortical electrical stimulation in the human: histopathol confirmation," Electroencephalography and clinical Neurophysiology, Vol. 75, pp. 371-377 (1990)	ogic
CRAMER, S.C. and BASTINGS, E.P., "Mapping clinically relevant plasticity after strong Neuropharmacology Vol. 19, No. 5, pp. 842-851 (April 2000)	ike,"
HODGE, JR., C.J. and BOAKYE, M., "Biological Plasticity: The Future of Science in Neurosurg Neurosurgery, Vol. 48, No. 1 (January 2001)	эгу,"
NITSCHE, M.A. and PAULUS, W., "Excitability changes induced in the human motor cortex by transcranial direct current stimulation," The Journal of Physiology, Vol. 527.3, pp. 663-639 (2000)	weak
ROSSI et al., "Effects of Repetitive Transcranial Magnetic Stimulation on Movement-related Cortical Act in Humans," Cerebral Cortex, Vol. 10, No. 8, pp. 802-808 (August 2000)	ivity
CINCOTTA et al., "Reorganization of the motor cortex in a patient with congenital hemiparesis and m movements," Neurology, Vol. 55, pp. 129-131 (2000)	irror
STEFAN et al., "Introduction of plasticity in the human motor cortex by paired associative stimulated Brian, Vol. 123, No. 3, pp. 575-584 (March 2000)	ion,"
FEYS et al., "Value of somatosensory and motor evoked potentials in predicting arm recovery after a strong (October 1999)	oke,"
TURTON, A. and LEMON, R.N., "The contribution of fast corticospinal input to the voluntary activated proximal muscles in normal subjects and in stroke patients," Exp. Brain Res., Vol. 129, pp. 559-572 (199)	
MARTINEZ et al., "Motor hand recovery after stroke Prognostic yield of early transcranial mag stimulation," Electromyography. Clin. Neurophysiology, Vol. 39, pp. 405-410 (1999)	netic
SAITOU et al., "Cerebral Blood Volume and Oxygenation Among Poststroke Hemiplegic Patients: Effect 13 Rehabilitation Tasks Measured by Near-Infrared Spectroscopy," Arch. Phys. Med. Rehabil., Vol. 81 1348-1356 (October 2000)	
MALENKA, R.C. and NICOLL, R.A., "Long-Term Potenetiation – A Decade of Progress?," Neuroscie Vol. 285, No. 5435, Issue of 17 September 1999, pp. 1870-1874	ence,
SANES, J.N. and DONOGHUE, J.P., "Plasticity and Primary Motor Cortex," Annu. Rev. Neurosci. 23: 415 (2000)	393-



COMPLETE IF KNOWN 09/978,134 substitute for form 1449A/PTO **Application Number** INFORMATION DISCLOSURE 4196 Confirmation Number 10/15/01 **\$**TATEMENT BY APPLICANT Filing Date **Bradford Evan Gliner** Tyse as many sheets as necessary) First Named Inventor 3762 Group Art Unit Unknown Examiner Name 5 of 6 Attorney Docket No. 337348021US FRANZINI et al., "Reversal of thalamic hand syndrome by long-term motor cortex stimulation," Journal of Neurosurgery 93:873-875 (2000) DO Q.B WALKER-BATSON et al., "Amphetamine Paired With Physical Therapy Accelerates Motor Recovery After Stroke," Stroke, Vol. 26, No. 12, pp. 2254-2259 (1995) DR NETZ et al., "Reorganization of motor output in the non-affected hemisphere after stroke," Brain, 120, pp. 1579-1586 (1997) SANES, "The Relation between Human Brain Activity and Hand Movements," NeuroImage 11, pp. 370-374 (2000)DT SANES, J. and DONOGHUE, J.P., "Plasticity and Primary Motor Cortex," Annual Review of Neuroscience 23:393-415 (2000) DU SANDKÜHLER, "Learning and memory in pain pathways," Pain 88, pp. 113-118 (2000) DV DAM et al., "Effects of Fluoxetine and Maprotiline on Functional Recovery in Poststroke Hemiplegic Patients Undergoing Rehabilitation Therapy," Stroke, Vol. 27, No. 7, pp. 1211-1214 (July 1996) BEL, S. and BAUER, B.L., "Dorsal Column Stimulation (DCS): Cost to Benefit Analysis." Acta Neurochirurgica, Suppl. 52, pp. 121-123 (1991) DX KOPELL et al., "The Continuing Evolution of Psychiatric Neurosurgery," CNS Spectrums, Vol. 5, No. 10, pp. 20-31 (October 2000) DY REZAI, "Neurostimulation," Neurological Research, Vol. 22, No. 3 pp. 235-273 (April 2000) DΖ TURTON et al., "Contralateral and ipsilateral EMG responses to transcranial magnetic stimulation during recovery of arm and hand function after stroke," Electroencephalography and Clinical Neurophysiology 101 EA pp. 316-328 (1996) BÜTEFISCH et al., "Mechanisms of use-dependent plasticity in the human motor cortex," Proc. Natl. Acad. Sci. USA, Vol. 97, No. 7, pp. 3661-3665 (March 2000) EB VAN DER LEE et al., "The Intra- and Interrater Reliability of the Action Research Arm Test: A Practical Test of Upper Extremity Function in Patients With Stroke," Arch. Phys. Med. Rehabil., Vol. 82 pp. 14-19 (January 2001) KAUHANEN et al., "Domans and Determinants of Quality of Life After Stroke Caused by Brian Infarction," Arch. Phys. Med. Rehabil., Vol. 81, pp. 1541-1546 (December 2000) ED ZIEMANN et al., "Modulation of Plasticity in Human Motor Cortex after Forearm Ischemic Nerve Block," The Journal of Neuroscience 18(3):1115-1123 (February 1998) EE ROUX et al., "Chronic Motor Cortex Stimulation for Phantom Limb Pain: A Functional Magnetic Resonance Imagining Study: Technical Cast Report," Neurosurgery, Vol. 49, No. 3 (March 2001) EF

Approved for use through 10/31/99.

			•			COMPLETE IF KNOWN				
	Substitute	for form	1449A/PTO ,			Application Number	09/978,134	コ		
	PE	VN.	FORMATION	DISCLOSUR	RE	Confirmation Number	4196	ヿ		
/o`		√ Ş Y	ATEMENT B	Y APPLICAN	T	Filing Date	10/15/01	\neg		
		(77)		ets as necessary)		First Named Inventor	Bradford Evan Gliner			
MAR	2 2 20	يتر علا				Group Art Unit	3762			
Line.		E E	7			Examiner Name	Unknown			
Vice.	Sheet	4	6	of	6	Attorney Docket No.	337348021US			
	TRIOS		COHEN et al.,	"Studies of Neur	oplasticity With	Transcranial Magnetic	Stimulation," The Journal of Clinical			
R.	.B.	EG	Neurophysiolog	gy, Vol. 15, No. 4	(1998)					
		ЕН				scranial magnetic stim Medicine, 189(3):203-1	ulation for hereditary spinocerebellar 11 (November 1999)	1		
		EI	LIEPERT et al. (2000)	., "Treatment-Ind	luced Cortical Re	eorganization After Stro	oke in Humans," Stroke, 31:1210-1216			
		EJ		"A neuromodula 22 pp. 267-272 (rational therapy of com	plex brain injury states," Neurological	/		
		EK		et al., "Enhand I. Neurol. Sci.,		fter Stroke with Noradrenergic Pharmacotherapy: A New May 2000)				
		EL				lation of Human Cor ophysiology, Vol. 15, N	rtical Excitability With Transcranial No. 4 (1998)			
		ЕМ	PASCUAL-LE 207-217 (1999)		nscranial magne	tic stimulation and neu	roplasticity," Neurophycologia 37, pp.	/		
1		EN	STEFAN et al. 123, pp. 572-58		lasticity in the h	human motor cortex by paired associative stimulation," Brain,				
EXA	MINE	R				DATE CONSIDERE	D			
	P.A.		fer			6/2/0	-			
*EX	AMINI					in conformance with MP next communication to applica		in		